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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

APPIAH, CHARLES NANA

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,206

Applicant(s)

FRANK ET AL.

Examiner

Charles Appiah

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 and 24-44 is/are allowed.
- 6) ☒ Claim(s) 8-10, 12-23 and 45-48 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 8-23 and 45-48 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 8, 9, 12, 20, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by **Fernandes et al. (GB 2 285 556)**.

Regarding claim 8, Fernandes discloses a method for providing telephone services in a mobile telecommunications network comprising a home base station (PBS 10), at least one mobile telephone (MS 12), and at least one telephone device (18, 14), see Fig. 1, the method comprising: registering the at least one mobile telephone with the home base station by storing information identifying the at least one mobile telephone (step 36, mobile registering with PBS using location update procedure, see page 5, lines 21-26, page 8, lines 27-29), detecting by the home base station the presence of the at least one mobile telephone (mobile being a preferred mobile by PBS and PBS accepting mobile, steps 38-40), establishing communication between the at least one telephone device and the home base station (feature of establishing link by an auto dialing action of the personal base station into a wireline network, page 6, lines 3-

11), establishing communication between the at least one mobile telephone and the home base station (step 40-42, mobile entering idle mode and waiting for outgoing or incoming call procedure), and transmitting the information identifying the at least one mobile telephone to at least one telephone device (inherent feature of auto dialing action of the personal base station into a wireline network, leading to end to end connectivity on a speech channel establishment, col. 6, lines 3-11). See Fig. 3.

Regarding claim 9, Fernandes further discloses (see Fig. 3): receiving identification information from the at least one mobile telephone (step 36), comparing the identification information received with the information stored (step 38), and if the identification information received matches the information stored, sending a request to establish communication with the at least one mobile telephone (Yes from step 38 to step 40).

Regarding claim 12, Fernandes further discloses receiving a signal from the at least one mobile telephone, the signal indicating an incoming call, ringing the at least one telephone device connected to the home base station and detecting the at least one telephone device answering (call arrival "ringing" state of a public network being recognized, page 6, lines 12-20) and sending a message to the at least one mobile telephone, the message indicating that the at least one telephone device answered the incoming call (see page 6, lines 15-20).

Regarding claim 20, Fernandes discloses a method for providing telephone services in a mobile telecommunications network comprising: a home base station (PBS 10), at least one mobile telephone (MS 12), and at least one telephone device (18, 14),

see Fig. 1, the method comprising: registering the home base station with the at least one mobile station by storing identification information for the home base station (entry of personal cell identification in a PLMN list for the mobile station at least prior to attempting to register with the personal base station, see page 5, lines 12-17), transmitting radio signals from at least one mobile station to the home base station, wherein the radio signals include identification information for the home base station (mobile locking on to the personal base station's broadcast control channel using a received radio signal, page 5, lines 21-30), receiving a connection request from the home base station, wherein the connection request contains the identification information for the home base station (personal base station accepting the mobile station using a location update accept message when the mobile station is a preferred mobile station, page 5, lines 26-30), and establishing a communication between the at least one mobile telephone and the home base station if the identification information matches the identification information stored (mobile entering idle mode after being accepted by the personal base station, see page 5 lines 26-32).

Regarding claim 21, Fernandes further discloses receiving an incoming call by the at least one mobile telephone (personal base station paging the mobile station when receiving calls, page 6, lines 12-15), and sending a signal to the home base station, wherein the signal indicates the incoming call (feature of the personal base station going "off hook" when the mobile station answers, page 6, lines 15-17).

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Fernandes et al** as applied to claim 8 above, and further in view of well known prior art Official Notice.

Regarding claim 10, Fernandes fails to explicitly teach displaying on the home base station the identification information of the at least one mobile telephone. The concept of displaying caller identification information on a mobile terminal is very well known in the art and as such examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art to provide for the display of any desired communication information including identification information on Fernandes's mobile telephone device and personal base station in order to ensure the appropriate routing of incoming calls where there are a plurality of mobile devices.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being obvious over **Fernandes et al** as applied to claim 8 above and further in view of **Reed et al. (5,574,984)**.

Regarding claim 18, Fernandes fails to teach detecting by the home base station the strength of radio signals from the at least one mobile telephone is fading and if a call is established, terminating the call.

Reed discloses a method and apparatus for controlling a power level of a base station in which a fading characteristic of signals received from a mobile station is

detected and compared to a threshold and the result used to make call termination decisions (see Fig. 1, col. 3, lines 30-40, col. 4, lines 1-15).

It would therefore have been obvious to one of ordinary skill in the art to provide for the detecting of signal strength and fading characteristic to the system of Fernandes in order to ensure provision of good quality communications to subscribers by terminating bad quality communication connections.

7. Claim 19 are rejected under 35 U.S.C. 103(a) as being obvious over **Fernandes et al** as applied to claim 8 above and further in view of **Griffith et al. (5,598,412)**.

Regarding claim 19, Fernandes fails to disclose wherein the at least one telephone device is a corded telephone device.

Griffith discloses an arrangement in which wired and wireless terminals can be interfaced to a switch through a base station using a passive bus connection (see Figs. 1, col. 3, lines 3-36 and 3, col. 11, lines 1-11).

It would therefore have been obvious to one of ordinary skill in the art to the provide for wireless (cordless) and wired (corded) terminal capability of Griffith to the system of Fernandes in order to service both wired and wireless terminals using minimal equipment thus reducing infrastructure costs.

8. Claims 13, 15, 17, 22-23, 45, 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fernandes et al. (GB 2 285 556)** in view of **Haartsen (5,771,453)**.

Regarding claims 13 and 15 Fernandes meets all limitations as applied above to claims 12 and 20 above. Fernandes fails to teach determining if at least one telephone device is available for answering the incoming call.

Haartsen discloses a personal base station, which allows the wire network to be accessed by multiple cellular terminals within the local region of the base station (see col. 2, lines 1-18), including receiving a signal from the at least one mobile telephone, the signal indicating an incoming call, ringing the at least one telephone device connected to the home base station, detecting the at least one telephone device answering the incoming call (see col. 7, lines 31-42), and sending a message to the at least one mobile telephone device answering the incoming call (see col. 2, line 61 to col. 3, line 17 and col. 11, lines 7-17). Haartsen further discloses wherein the at least one telephone device is a cordless telephone (terminal 120a is cordless, see Fig. 1).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Haartsen with Fernandes's personal communication system in order to provide the benefits of low cost and mobility which can be used in both a personal, cordless and cellular environment.

Regarding claim 17, the combination of Fernandes and Haartsen inherently discloses providing dial tones to the at least one telephone device and receiving a dialed number from the at least one telephone device (see Haartsen, col. 10, line 46 to col. 11, line 5). It is inherent that the attached terminal originating a call and for which a connection is made to the base station, is allowed to make a call using a dialed number when the remaining terminals are prevented from accessing the base station.

Regarding claim 22, the combination of Fernandes and Haartsen as shown by Haartsen's teaching of the cellular terminal, after a successful authentication and being attached to the telephone base station, can accept calls from and initiate calls to the telephone base station (see col. 3, lines 35-40) reads on the steps of receiving by the at least one mobile telephone a destination number from the home base station and sending by the at least one mobile telephone the destination number to the mobile telecommunications network.

Regarding claim 23, the combination of Fernandes and Haartsen further discloses receiving a message from the home base station, wherein the message indicates at least one telephone device in communication with the home base station is ready to answer the incoming call and answering the incoming call (see Haartsen col. 3, lines 43-53).

Regarding claims 45-46, Fernandes discloses an apparatus for providing telecommunications services to a user, the apparatus being capable of communicating with a wireless network and with a home base station (feature of cellular phone subscriber being able to use his cellular phone in the environment of the personal base station and the cellular system environment, page 6, lines 17-30), the apparatus comprising: a controller unit (inherent feature of mobile station 12 being able to lock on to a personal base station, page 5, lines 1-6), a transceiver unit for communicating with the wireless network (feature of mobile being used in a cellular system environment, page 5, lines 22-30), a home base station interface unit for communicating with the home base station (mobile being able to lock on to the personal base station's

broadcast control channel, page 5, lines 21-26), wherein the home base station interface unit is operative to enable communication from at least one telephone device on the wireless network through the transceiver unit via the home base station (feature of using a digital cellular telephone via a personal base station to place low cost calls in a subscriber's home, page 6, lines 26-35). Fernandes fails to explicitly disclose the apparatus having a display unit for displaying information on a display screen, a keypad unit for interfacing with a keypad, an audio input unit and an audio output unit wherein the audio output unit interfaces with an earpiece speaker.

Examiner maintains that the use mobile or cellular phones having a display unit for displaying information on a display screen, a keypad unit for interfacing with a keypad, an audio input and out put units wherein the audio output unit interfaces with an earpiece speaker are very well known and expected in the art as taught for example by Haartsen. Haartsen discloses a personal base station, which allows the wire network to be accessed by multiple cellular terminals within the local region of the base station (see col. 2, lines 1-18), wherein the cellular terminal (see Fig. 5), includes a display unit (259) for displaying information on a display screen, a keypad unit for interfacing with a keypad (257), an audio input unit (263) and an audio output unit (261) wherein the audio output unit interfaces with an earpiece speaker in order to transmit and receive audio, video and data and/or multimedia signals (see col. 9, lines 23-48).

It would therefore have been obvious to one of ordinary skill in the art to use a cellular or mobile telephone terminal having a display, keypad, audio input and output

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features in order to facilitate the reception and transmission of audio, video and data and/or multimedia signals as taught by Haartsen.

Regarding claim 47, Fernandes further discloses wherein the home base station interface unit is capable of transmitting and receiving radio signals (feature of radio link between PBS 10 and MS 12 as illustrated in Fig. 1).

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Fernandes et al** as applied to claim 8 above, and further in view of **Bhatia et al. (WO 01/58181)**.

Regarding claim 14, Fernandes fails to disclose wherein the communication between the at least one mobile telephone and the home base station follows Bluetooth protocols.

Bhatia discloses a system and method for connecting external devices wirelessly to a base transceiver station (BTS) via a short-range ad-hoc network such as the Bluetooth network (see abstract, Figs. 1-3). According to Bhatia, the BTS has a Bluetooth compatible transceiver for interfacing with the external equipment and also a Bluetooth adapter which is responsible for determining the address of each Bluetooth capable external equipment connected to the BTS and the type of equipment (protocol) it is (see page 5, lines 3-20).

It would therefore have been obvious to one of ordinary skill to combine the teaching of Bhatia by providing the use of Bluetooth protocols for wireless connection between a base station and external equipment with Fernandes in order to provide

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short range communications with ease of installation and reduced cost as taught by Bhatia.

10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Fernandes et al and Haartsen** as applied to claim 15 above, and further in view of **Bhatia et al. (WO 01/58181)**.

Regarding claim 16, Fernandes as modified by Haartsen fails to disclose wherein the home base station and the cordless telephone device follows Bluetooth protocols.

Bhatia discloses a system and method for connecting external devices wirelessly to a base transceiver station (BTS) via a short-range ad-hoc network such as the Bluetooth network (see abstract, Figs. 1-3). According to Bhatia, the BTS has a Bluetooth compatible transceiver for interfacing with the external equipment and also a Bluetooth adapter which is responsible for determining the address of each Bluetooth capable external equipment connected to the BTS and the type of equipment (protocol) it is (see page 5, lines 3-20).

It would therefore have been obvious to one of ordinary skill to combine the teaching of Bhatia by providing the use of Bluetooth protocols for wireless connection between a base station and external equipment with Fernandes as modified by Haartsen in order to provide short range communications with ease of installation and reduced cost as taught by Bhatia.

11. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Fernandes et al and Haartsen** as applied to claim 45 above, and further in view of **Bhatia et al. (WO 01/58181)**.

Regarding claim 48, Fernandes as modified by Haartsen fails to disclose wherein the radio signals are transmitted according to Bluetooth protocols.

Bhatia discloses a system and method for connecting external devices wirelessly to a base transceiver station (BTS) via a short-range ad-hoc network such as the Bluetooth network (see abstract, Figs. 1-3). According to Bhatia, the BTS has a Bluetooth compatible transceiver for interfacing with the external equipment and also a Bluetooth adapter which is responsible for determining the address of each Bluetooth capable external equipment connected to the BTS and the type of equipment (protocol) it is (see page 5, lines 3-20).

It would therefore have been obvious to one of ordinary skill to combine the teaching of Bhatia by providing the use of Bluetooth protocols for wireless connection between a base station and external equipment with Fernandes as modified by Haartsen in order to provide short range communications with ease of installation and reduced cost as taught by Bhatia.

Allowable Subject Matter

12. Claims 1-7, and 24-44 are allowed.

13. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Davison (GB 2 283 881) teaches a telephone communication assembly comprising a switch having at least two extension ports, which is adapted for use directly in a public, non-wired communication network.

Hokkanen (WO 98/28929) discloses a system having a home base station for turning a cellular network phone into a cordless phone.


Schreib et al. (6,314,299) discloses a method and home base station for setting up connections for a mobile station.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is 703 305-4772. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CA
July 12, 2004


CHARLES APPIAH
PRIMARY EXAMINER